

## **SUBCHAPTER B: LIVESTOCK AND POULTRY PRODUCTION OPERATIONS**

### **§321.31. Statement of No Discharge Policy.**

It is the policy of the Texas Water Commission that there shall be no discharge of waste and/or wastewater from concentrated animal feeding operations into the waters in the state, but rather that these materials shall be retained and utilized or disposed of on agricultural land.

### **§321.32. Definitions.**

The following words and terms, when used in this subchapter, shall have the following meanings, unless the context clearly indicates otherwise:

**Auction market** - Any person engaged in the business of buying or selling livestock on a commission basis; or furnishing stockyard services for livestock producers, feeders, market agencies, and buyers. Stockyard services include pens or other enclosures and their appurtenances, in which live cattle, sheep, goats, swine, horses or mules are received, held, or kept for sale or shipment. For the purposes of this subchapter, the term auction market is synonymous with the terms sale ring, auction barn, livestock commission companies and livestock sale barn, as these terms are commonly used in the agriculture industry.

**Average daily basis** - The arithmetic mean for the number of animals in a feedlot operation during any period of 90 consecutive days (e.g. the total number of animals on the premises added daily for a 90 consecutive day period divided by 90).

**Edwards Aquifer** - That portion of an arcuate belt of porous, waterbearing limestones composed of the Comanche Peak, Edwards, and Georgetown formations trending from west to east to northeast through Kinney, Uvalde, Medina, Bexar, Comal, Hays, and Williamson Counties. (See Chapter 313 of this title relating to Edwards Aquifer)

**Feedlot/concentrated animal feeding operation** - A concentrated, confined livestock or poultry facility operated for meat, milk or egg production, growing, stabling, or housing, in pens or houses wherein livestock or poultry are fed at the place of confinement and crop or forage growth or production of feed is not sustained in the area of confinement.

**Flushwater waste handling system** - A system in which clarified wastewater is recycled for use in transporting waste.

**Free stall barn** - Specialized buildings wherein producing livestock are permitted free movement between resting and feeding areas.

**Housed lot** - Totally roofed buildings with open or enclosed sides wherein livestock or poultry are housed on solid concrete or dirt floors, slotted (partially open) floors over pits or waste collection areas in pens, stalls or cages, with or without bedding materials and mechanical ventilation. For the purposes of this subchapter, the term housed lot is synonymous with the terms slotted floor building, barn, stable, or house, for livestock or poultry, as these terms are commonly used in the agriculture industry.

**Lagoon** - An earthen structure for the biological treatment for liquid organic wastes. Lagoons can be aerobic, anaerobic, or facultative depending on their design and can be used in series to produce a higher quality effluent.

**Milking center** - A separate milking area with milk storage and cooling facility adjacent to a free stall barn or cowyard dairy operation.

**Milkroom** - Milk storage and cooling rooms normally used for stall barn dairies.

**No discharge** - The absence of flow of waste, process generated wastewater, contaminated rainfall runoff or other wastewater from the premises of the feedlot, except for overflows which result from rainfall events greater than the 25-year, 24-hour maximum rainfall event.

**Open lot** - Pens or similar confinement areas with dirt, concrete, or other paved or hard surfaces wherein animals or poultry are substantially or entirely exposed to the outside environment except for small portions of the total confinement area affording protection by windbreaks or small shed-type shade areas. For the purposes of this subchapter, the term open lot is synonymous with the terms yard, pasture lot, dirt lot, and dry lot, for livestock or poultry, as these terms are commonly used in the agricultural industry.

**Operator** - The owner of a feedlot operation.

**Permittee** - Any person whose feedlot operation is subject to the permit requirements of this subchapter.

**Pesticide** - A substance or mixture of substances intended to prevent, destroy, repel, or mitigate any pest, or any substance or mixture of substances intended for use as a plant regulator, defoliant, or desiccant.

**Process generated wastewater** - Water directly or indirectly resulting from a feedlot operation for any or all of the following:

- (A) spillage or overflow from animal or poultry watering systems;
- (B) washing, cleaning or flushing pens, barns, manure pits or other feedlot facilities;
- (C) direct contact swimming, washing or spray cooling of animals;
- (D) dust control; and
- (E) any other use in which water may contact animals, or wastes produced from feedlot operations or facilities.

**Recharge zone** - Generally, that area where the Edwards and associated limestones crop out in Kinney, Uvalde, Medina, Bexar, Comal, Hays, and Williamson Counties and the outcrops of other formations in proximity to the Edwards limestone, where faulting and fracturing may allow recharge of the surface waters to the Edwards Aquifer, and the area in Uvalde County within 500 feet of the Nueces, Dry Frio, Frio, and Sabinal Rivers downstream from the northern Uvalde County line to the recharge zone as otherwise defined. The recharge zone is specifically that geological area delineated on official maps located in the offices of the commission and the Edwards Underground Water District. (See Chapter 313 of this title relating to Edwards Aquifer.)

**Stall barn** - Specialized buildings wherein producing cows and replacement cows are milked and fed in a fixed location.

**25-Year rainfall event** - The maximum rainfall event with a probable recurrence interval of once in 25-years, with a duration of 24 hours, as defined by the National Weather Service in Technical Paper Number 40, "Rainfall Frequency Atlas of the United States", May 1961, and subsequent amendments, or equivalent information developed therefrom. (Note: Refer to Exhibit 1 of §321.41 of this title (relating to Appendix A) to obtain an appropriate value for the 25-year rainfall event.)

**Waste** - Manure (feces and urine), litter, bedding, or feedwaste from feedlot operations.

**Wastewater** - Water containing waste or contaminated by waste contact, including process-generated and contaminated rainfall runoff.

**§321.33. Applicability.**

(a) All feedlot operations may be regulated by rule, subject to subsections (b)-(d) of this section, provided such operations comply with §321.35 of this title (relating to Surface Water Protection), §321.36 of this title (relating to Groundwater Protection), §321.37 of this title (relating to Feedlot Waste Utilization or Disposal By Land Spreading), §321.38 of this title (relating to Other Waste Disposal Methods) and §321.39 of this title (relating to Pesticide Use). The provisions of this subsection are applicable to all feedlot operations, either housed or open lots, including beef cattle, dairy cattle or milk production areas; swine; sheep; goats; horses; chickens, including broilers, layers and/or breeders; turkeys, including breeders and/or feeders; and auction markets.

(b) The executive director may require any feedlot operation to comply with the requirements of this subchapter in order to achieve the policy and purposes enumerated in the Texas Water Code, §§5.120 and 26.003; the Texas Solid Waste Disposal Act, Revised Texas Civil Statutes, Article 4477-7, §1; and §321.31 of this title (relating to Statement of No Discharge Policy). The executive director may require the operator of any feedlot operation to apply for and obtain a permit. Cases for which a permit may be required include, but are not limited to, situations where:

- (1) the operation is located near surface and/or groundwater resources;
- (2) compliance with standards in addition to those listed in this subchapter is necessary in order to protect fresh water from pollution; or
- (3) the operation is not in compliance with the standards of this subchapter.

(c) Notwithstanding the provisions of subsections (b) and (d) of this section, feedlots which are regulated by permit on the effective date of these rules shall continue to be regulated by permit.

(d) Operators of feedlot operations with more than the specified numbers of animals on an average daily basis in housed or open lots shall be regulated by permit issued by the commission:

- (1) dairy cattle - 250 milking head;
- (2) beef cattle - 1,000 head;
- (3) swine - 1,500 head;
- (4) sheep and goats - 6,000 head;
- (5) horses - 600 head;
- (6) chickens, including broilers, breeders and layers - 30,000 birds with liquid waste handling system; or 100,000 birds with continuous overflow watering system and dry waste handling system;

(7) turkeys, including breeders and feeders - 9,000 birds with liquid waste handling systems; or 32,000 birds with continuous overflow watering systems; or 35,000 birds in open lots.

(e) Operators of feedlot operations not required to obtain a permit under subsections (b) or (d) of this section must locate, construct and manage waste control facilities to protect surface and groundwaters in accordance with the technical requirements of §321.35 of this title (relating to Surface Water Protection), §321.36 of this title (relating to Groundwater Protection), §321.37 of this title (relating to Feedlot Waste Utilization or Disposal By Land Spreading), §321.38 of this title (relating to Other Waste Disposal Methods) and §321.39 of this title (relating to Pesticide Use).

#### **§321.34. Procedures for Making Application for a Permit.**

(a) Any person whose feedlot operation does not conform to the criteria for regulation by rule set forth under §321.33 of this title (relating to Applicability) shall apply for a permit. Application for a permit shall be made on forms provided by the executive director. The applicant shall provide such additional information in support of the application as may be necessary for an adequate technical review of the application. At a minimum, the application shall demonstrate compliance with the technical requirements set forth in §321.35 of this title (relating to Surface Water Protection), §321.36 of this title (relating to Ground Water Protection), §321.37 of this title (relating to Feedlot Waste Utilization or Disposal by Land Spreading), §321.38 of this title (relating to Other Waste Disposal Methods) and §321.39 of this title (relating to Pesticide Use), or other equivalent technical requirements. Applicants shall comply with §§305.41-305.45 of this title (relating to Applicability; Application Required; Who Applies; Signatories to Applications; Contents of Application for Permit). Each applicant shall pay an application fee as required by §305.53 of this title (relating to Application Fees). An annual waste treatment inspection fee is also required of each permittee as required by §305.503 of this title (relating to Fee Assessments). Except as provided in subsections (b)-(e) of this section, each permittee shall comply with §§305.61-305.68 of this title (relating to Applicability, Amendment, Renewal, Transfer of Permits, Corrections of Permits; Permit Denial, Suspension and Revocation; Revocation and Suspension Upon Request or Consent; and Action and Notice on Petition for Revocation or Suspension). Each permittee shall comply with §305.125 of this title (relating to Standard Permit Conditions). Permits authorized under this subchapter may be effective for the life of the project as determined by §305.127(1)(C) of this title (relating to Conditions to be Determined for Individuals Permits).

(b) Permit renewal will be according to the following procedure:

(1) An application to renew a permit for a confined animal feeding operation which was issued between July 1, 1974, and December 31, 1977, may be renewed by the commission at a regular meeting without holding a public hearing if the applicant does not seek to discharge into or adjacent to waters in the state and does not seek to change materially the pattern or place of disposal.

(2) Except as provided by §305.63 (3) of this title (relating to Consolidated Permits - Renewals), an application for a permit renewal which does not propose any other change to the permit and where there has been no related formal major enforcement action against the permitted facility

during the last 36 months of the term of the permit may be granted by the executive director without a public hearing. As used in this subchapter, the term "major enforcement action" shall apply to those enforcement actions in which the executive director or the commission has determined that a violation which would contribute to pollution of surface or ground water or an unauthorized discharge has occurred; such discharge was within the reasonable control of the permittee; and such discharge could have been reasonably foreseen by the permittee. In addition to the above provisions, for any application for renewal of a permit within an area designated under §321.197 of this title (relating to Dairy Outreach Program Areas), an annual compliance inspection shall have been completed within the 12 months prior to the executive director processing the application.

(c) A fee of \$315 to be applied toward processing of the application.

(d) A permittee submitting an application for renewal satisfying the criteria in subsection (b) (2) of this section will automatically be issued a notice of renewal for the existing permit by the executive director.

(e) If the application for renewal cannot meet all of the criteria in subsection (b) of this section, then an application for renewal shall be filed in accordance with subsection (a) of this section.

(f) Any permittee with an issued and effective permit shall submit an application for renewal at least 180 days before the expiration date of the effective permit, unless permission for a later date has been granted by the executive director. The executive director shall provide the permittee notice of deadline for the application for renewal at least 240 days before the permit expiration date. The executive director shall not grant permission for applications to be submitted later than the expiration date of the existing permit.

Adopted June 14, 1995

Effective July 13, 1995

#### **§321.35. Surface Water Protection.**

(a) Waste control facilities shall be managed so as to retain all feedlot rainfall runoff from open lots and associated areas resulting from a 25-year or lesser rainfall event, process generated wastewater, and waste, as provided in this subchapter.

(1) Off-site drainage diversion: When feedlot wastes must be isolated from outside surface drainage by ditches, dikes, berms, terraces or other such structures, these diversion structures shall be designed to carry peak flows expected at times when the 25-year rainfall event occurs.

(2) Waste and wastewater retention facilities: Dikes, pits, ponds, lagoons, or other structures relied on to hold waste materials and rainfall runoff shall have capacity sufficient to retain:

(A) all runoff from open lots and associated areas resulting from the 25-year rainfall event; and

(B) all waste and process generated wastewater produced during a period of time not less than the minimum storage period value obtained from Exhibit 2 of §321.41 of this title (relating to Appendix A).

(b) Adequate equipment shall be available for removal of such waste and wastewater as required for compliance with the provisions of subsection (a) of this section or the provisions of the operator's permit. Prescribed capabilities of diversion and containment structures shall be maintained at all times.

(c) Runoff volume from the feedlot surface shall be determined from soil cover complex curve number 90 for unpaved lots, or soil cover complex curve number 95 for paved lots, as defined by the United States Department of Agriculture (U.S.D.A.) Soil Conservation Service and as depicted in Exhibit 3 of §321.41 of this title (relating to Appendix A). The executive director may approve the use of a different soil cover complex curve number with regard to unpaved lots on a case-by-case basis.

(d) Retention facilities as required in paragraph (a) of this section shall be equipped with either irrigation or evaporation systems capable of dewatering the retention facilities.

(1) For irrigation disposal systems, except as provided in paragraph (3) of this subsection, whenever 50% of the design runoff storage capacity is exceeded by accumulated runoff, sediment, manure, and/or process generated wastewater, the retention facility shall be dewatered to a level that restores the full runoff storage capacity and the dewatering process shall be completed within a 21-day period. If the irrigation system is not capable of dewatering the retention facilities as required herein, sufficient additional storage capacity shall be provided in lieu of dewatering capabilities upon written approval of the executive director, and under such terms and conditions as the executive director may specify.

(2) Evaporation systems shall be designed to withstand a 10-year period of maximum recorded rainfall, as determined by a water budget analysis, and freeboard shall be maintained to dispose of rainfall and rainfall runoff from the 25-year rainfall event without overflow.

(3) Operators using pits, ponds, or lagoons for storage and treatment of manure and process generated wastewater, including flushwater waste handling systems, shall maintain in their wastewater retention facility sufficient freeboard to contain rainfall and rainfall runoff from a 25-year rainfall event. The operator shall restore normal freeboard within 21 days of any rainfall event or accumulation of manure or process generated wastewater which reduces such freeboard.

(4) Retention facilities shall not be located within the 100-year floodplain unless protective measures are designed and constructed.

#### **§321.36. Groundwater Protection.**

(a) All wastewater retention facilities shall be constructed of compacted or in-situ earthen materials which meet the following particle size gradation and Atterberg limits:

- (1) 30% or more passing a number 200 mesh sieve;
- (2) a liquid limit of 30% or greater; and
- (3) a plasticity index of 15 or greater.

(b) If the wastewater retention facilities are not constructed in suitable materials as described in subsection (a) of this section, then an alternate lining shall be required. Suitable linings include earthen blankets and impervious materials.

(1) Earthen blankets shall consist of suitable materials as described in subsection (a) of this section and shall have a minimum compacted thickness of 12 inches.

(2) Impervious materials include flexible membrane linings, asphalt-sealed fabric liners, and bentonite sealants. Installation of impervious materials shall be in accordance with a detailed plan which meets the USDA Soil Conservation Service conservation practice standard and specification code 521 "Pond Sealing or Lining".

(3) The permittee shall furnish suitable evidence that a completed lining, as described in subsection (b)(1) and (2) of this section, meets the appropriate criteria.

(c) Alternative methods of lining, other than those described in subsections (a) and (b) of this section, require prior written approval of the executive director.

(d) Earthen retention facilities in existence on the date this subchapter becomes effective shall be exempt from the requirements of subsections (a) and (b) of this section provided the owner or operator prevents the discharge of wastes into surface and groundwaters. This exemption does not affect previously issued permits having permit terms and conditions which specifically require the lining of retention facilities. Whenever the discharge of waste or wastewater into surface and groundwater occurs, or threatens to occur, the executive director may require compliance with the provisions of subsection (a) and (b) of this section.

#### **§321.37. Feedlot Waste Utilization or Disposal By Land Application.**

(a) If land application is utilized for disposal of waste and/or wastewater, the following requirements shall apply:

- (1) Utilization and disposal methods.

(A) Liquid and solid feedlot waste shall be distributed on agricultural lands so that neither the waste nor rainfall runoff will adversely affect the quality of receiving waters.

(B) When irrigation disposal of wastewater is used, tailwater facilities shall be provided as necessary to prevent the release of applied wastewater.

(C) Disposal of waste and wastewater shall be done in such a manner as to prevent nuisance conditions such as odors and flies.

(D) Wastewater shall not be irrigated when the ground is frozen or saturated or during rainfall events.

(2) Application rates. Except as may be required by permit, liquid and solid waste, and/or wastewater, shall be applied in such concentrations, and application shall be made at such intervals, as to not inhibit the growth of crops or forage or result in wastewater runoff.

(3) Management of wastes. Collection, storage, and disposal of liquid and solid waste shall be managed in accordance with recognized practices of good agricultural management.

(b) All solid waste materials stockpiled or retained onsite shall be isolated from all run-on storm waters by dikes, terraces, berms, ditches, or other similar structures and shall be maintained so as to retain all rainfall which comes in contact with the stockpiled solid waste material.

#### **§321.38. Other Waste Disposal Methods.**

If the operator proposes to use methods of disposal other than land application, he must first obtain prior written approval from the executive director.

#### **§321.39. Pesticide Use.**

The operator shall prevent the discharge of waters which have been contaminated by pesticides and shall notify the executive director immediately if such discharge occurs.

#### **§321.40. Edwards Aquifer.**

New feedlot/concentrated animal feeding operations are prohibited on the recharge zone.

#### **§321.41. Appendix A.**

Appendix A is a collection of exhibits which describe certain design requirements for waste control systems.



EXHIBIT 1  
 25-Year 24-Hour Rainfall (Inches)  
 Ref: Weather Bureau Technical Paper No. 40

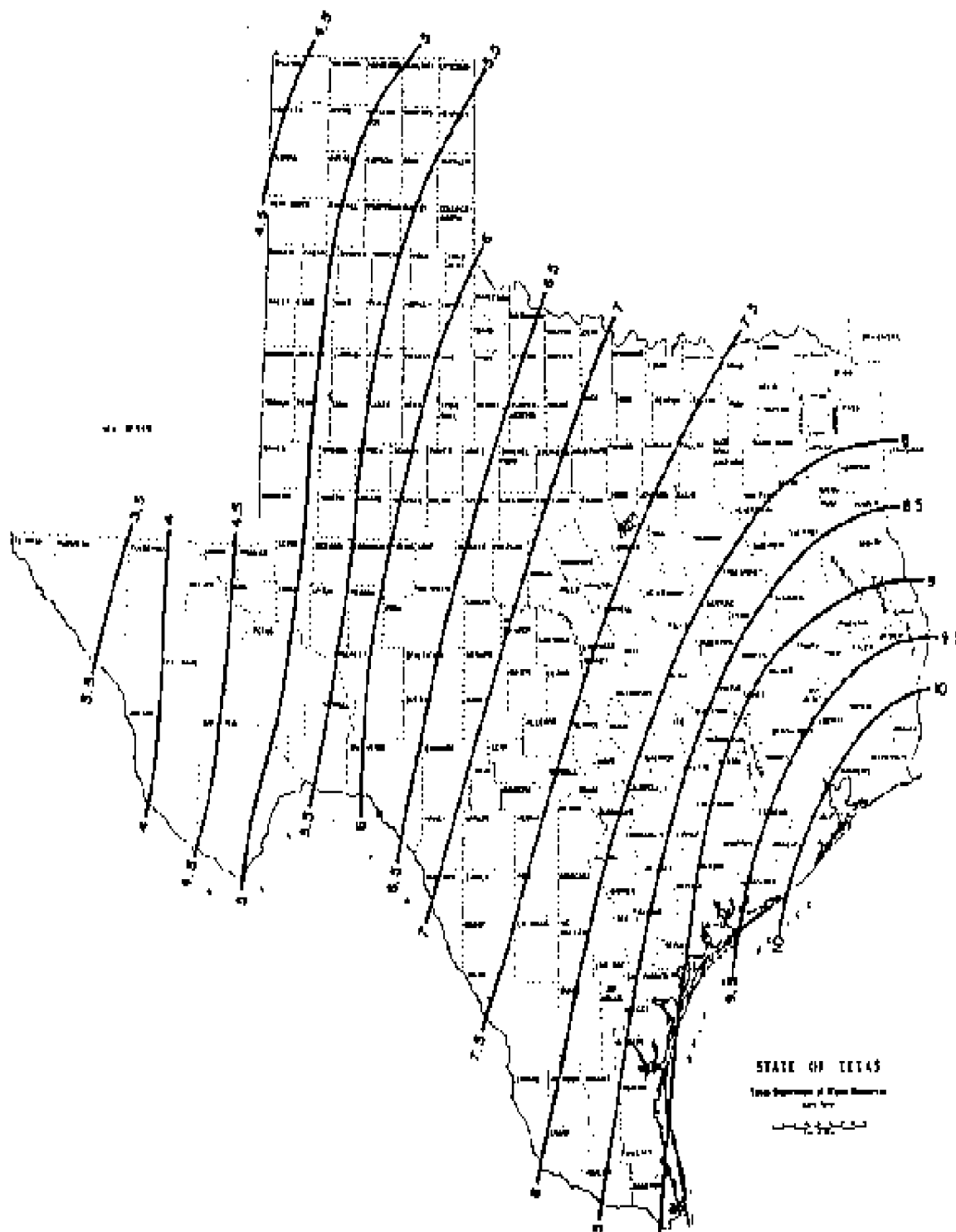
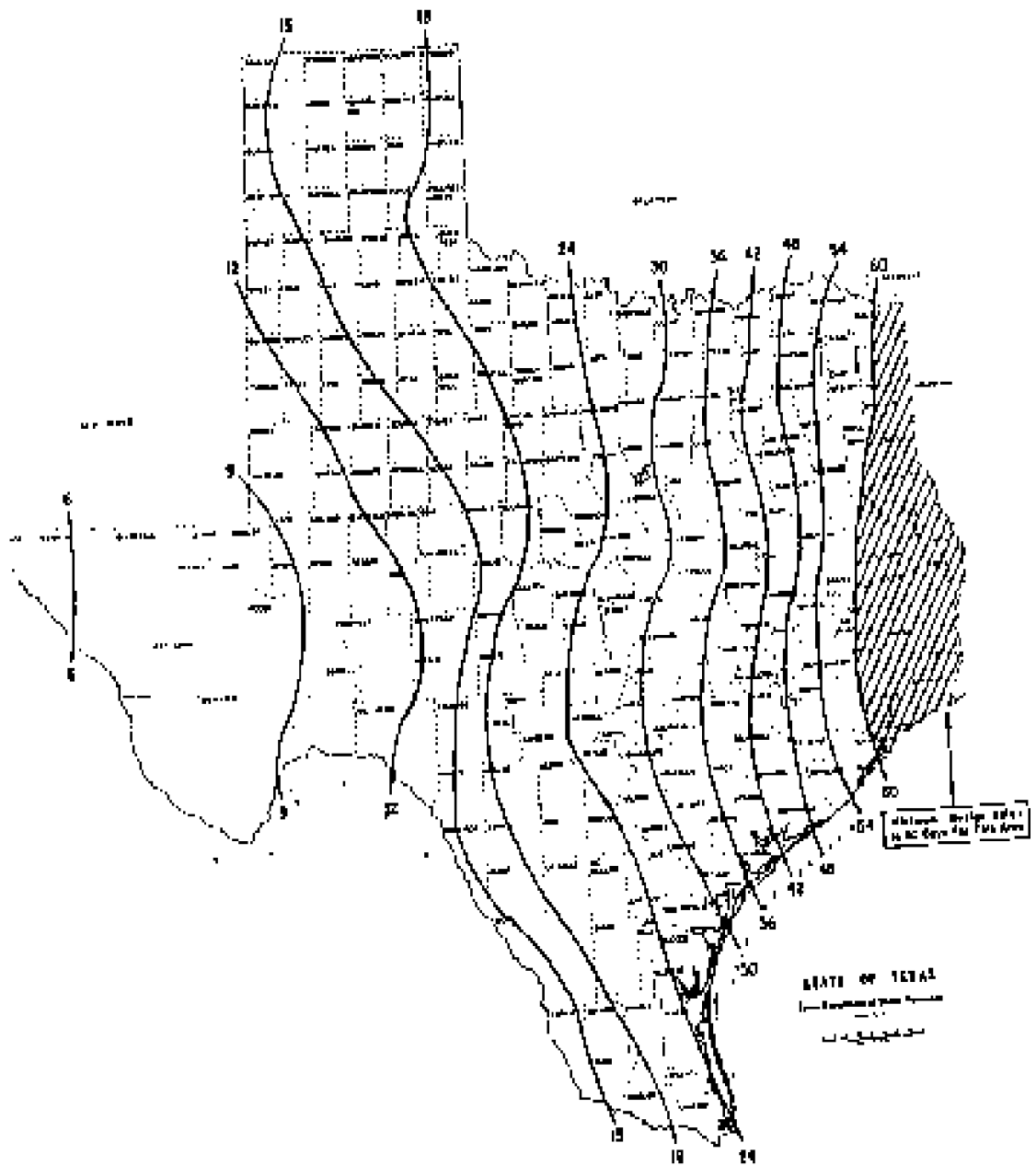


EXHIBIT 2  
Minimum Storage Period in Days  
Ref: TWDB Report 64

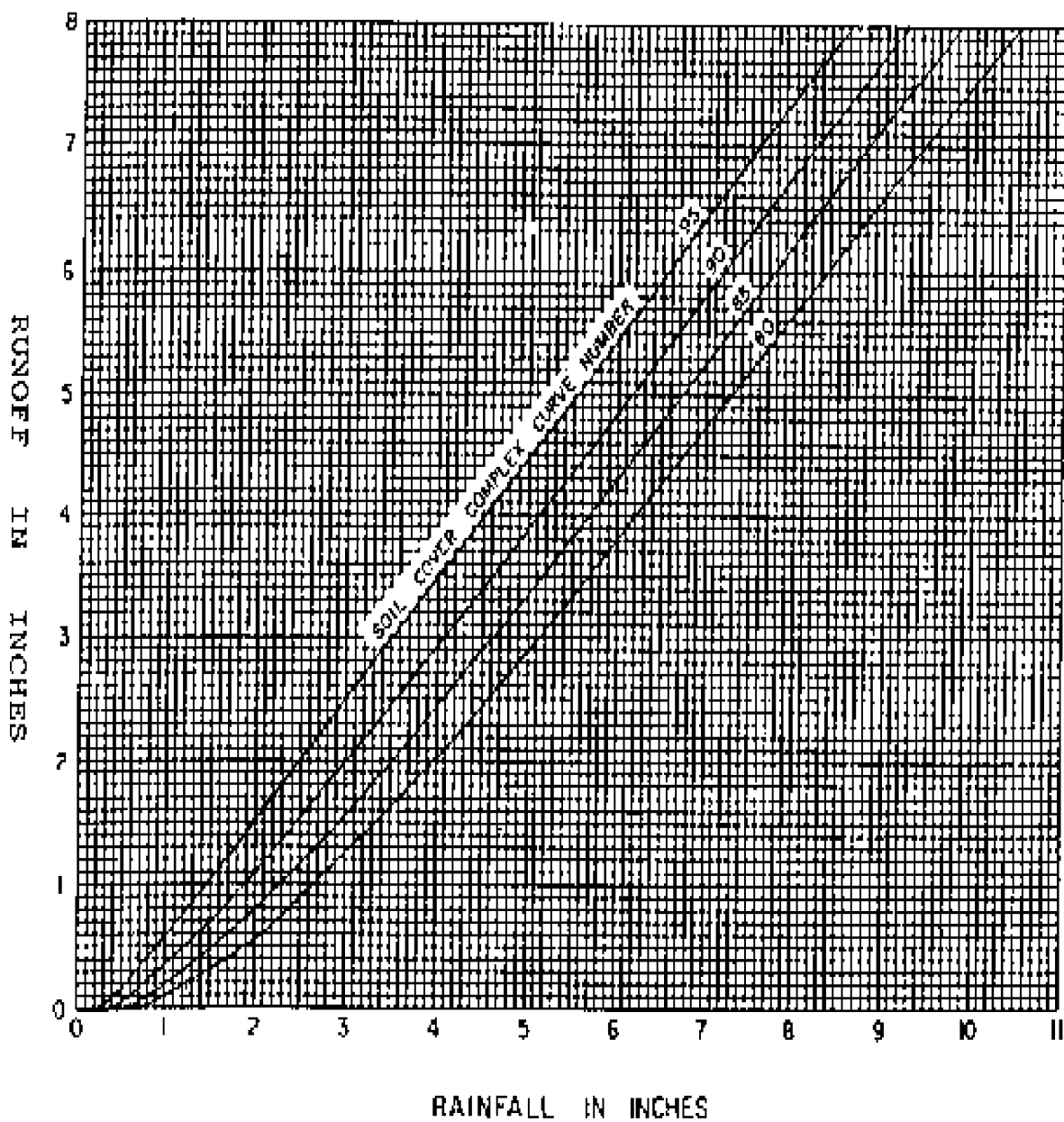


This is the minimum storage period for all storage systems (surface, subsurface, and surface storage systems).

### EXHIBIT 3

Prediction of runoff from feedlots  
using the soil cover complex procedure

Rel: USDA, SCS National Engineering Handbook, Section 4



**§321.42. Registration.**

All dairies operating as concentrated animal feeding operations shall notify the executive director of their business name, physical location including a map or hand drawn sketch, mailing address and number of milking head. Such notification shall be in writing and signed by the owner/operator. Additionally, should a dairy concentrated animal feeding operation change substantially in the number of milking head, that dairy shall submit an amended notification.

**§321.43. Best Management Practices.**

The following Best Management Practices (BMPs) shall be utilized by concentrated animal feeding dairy owners/operators, as appropriate based upon existing physical and economic conditions, opportunities and constraints, until a finally effective permit or other authorization is issued by the commission or until a waste management plan is approved by the executive director.

(1) Practices to decrease lot runoff volume:

(A) divert runoff from clean areas above lot:

- (i) construct ditches, terraces and waterways above an open lot;
- (ii) install gutters, downspouts and buried conduits to divert roof drainage; and
- (iii) provide more roofed area.

(B) decrease open lot surface area:

- (i) increase animal density to reduce lot size;
- (ii) improve lot surfacing to support increased animal density;
- (iii) provide more roofed area;
- (iv) collect manure more frequently; and
- (v) eliminate areas that slope in directions such that wastewater/rainfall cannot be collected.

(2) Practices to decrease water volume:

- (A) repair or adjust waterers and water systems to minimize water wastage.
- (B) use practical amounts of water for cooling.

(C) use practical amounts of water for cleaning equipment.

(D) recycle water to flush manure from paved surfaces outside the milking parlor if practical and applicable.

(3) Practices to decrease lot runoff and wastewater discharges to watercourses:

(A) collect and allow wastewater to evaporate.

(B) collect and evenly apply wastewater to land.

(4) Practices to minimize solid manure transport to watercourses:

(A) do not stockpile manure near watercourses.

(B) provide adequate manure storage capacity based upon manure and waste production and land availability.

(C) apply solid manure to suitable land at appropriate times and rates:

(i) adjust timing and rate of applications to crop needs, assuming usual nutrient losses, expected precipitation and soil conditions;

(ii) avoid applications on frozen or saturated soils; and

(iii) avoid land subject to excessive erosion.

(D) use edge-of-field, grassed strips to separate eroded soil and manure particles from the field runoff.

(E) utilize off-site areas for manure application in a manner consistent with paragraphs (1) through (4) of this section.

(5) Practices to Protect Groundwater.

(A) locate waste management facilities a minimum horizontal distance of 150 feet from all water wells if practical.

(B) when applying waste/wastewater to land, utilize a buffer area around water wells to prevent the possibility of waste transport to groundwater via the well or well casing.

**§321.44. Wastewater Retention.**

(a) Until issuance of a permit, a dairy owner/operator shall manage any waste control facilities so as to contain 70% of the rainfall and rainfall runoff collected from a 25-year, 24-hour rainfall event. If multiple rainfalls occur within a seven day period, an owner/operator shall contain rainfall and rainfall runoff equivalent to 50% of the 25-year, 24-hour rainfall event.

(b) Until issuance of a permit, a dairy owner/operator shall manage any waste control facilities to retain all waste and process generated wastewater produced during a time not less than 75% of the minimum storage period value obtained from Exhibit 2 of §321.41 of this title (relating to Appendix A).

**§321.45. Permit or Commission Authorization Required.**

For new dairies, no dairy owner/operator who is required to obtain a permit may commence physical construction and/or operation of any waste management facilities without first having submitted a permit application and receiving a finally effective permit or other commission authorization.

**§321.46. Permit Application within 90 days of Commission Notification.**

The dairy owner/operator shall submit a complete permit application within 90 days of notification from the executive director that a permit is required.

Repeal of §321.34

Adopted of new §321.34

Date Adopted: May 10, 1995

Date Filed with the Secretary of State:

Date Effective: July 13, 1995